

## 8 Steps To A Successful Automation Project

by Litbrix



OK, you have just realized that the new home you are about to build for yourself can never be truly spectacular and functional without some 21st century technology build into it. Indeed, many people want their homes to utilize the latest solutions that will not only save you energy, money and time but will also provide unparalleled security and entertainment capabilities in one fully integrated system that can be easily controlled and managed. A fully integrated smart home, therefore, is usually packed with the latest and often very sophisticated automation solution that put you in charge of all functions of your home, be it security, lighting, blinds, HVAC or entertainment systems.

Many people, however, do not really possess expertise or time to undertake such complex project. Without help from professionals who can provide proper advice, design, installation, integration, testing and support services you will most likely run into higher costs, delays, and system errors that will frustrate your already mammoth task of building a new house. In this section, we would like to show you steps you are suggested to take in order to stay on time, within budget, and most importantly achieve successful completion of your new smart home.

### Step 1: Functionality

It is important to understand what specific smart home capabilities you would like to have. If you already know you are going to have a very strict budget, you must decide which functions are



absolutely necessary and which are secondary. For example, you might prefer to have fully automated lighting and HVAC controls but home movie theater, while nice to have, might bring your expenditure above acceptable level.

Some of the examples of smart home features include:

- a. Motion sensors in key areas that can trigger your smart home to switch off lights when a room has been vacant for a certain period of time
- b. “All Off/On” button that turns all lights in your house off or on.
- c. Landscape lighting controls that adjust outside lights automatically depending on time of day to conserve energy.
- d. Stream different music to different rooms using multi-zone functionality or same music to every room in your house.
- e. Distribute music from various sources using control devices such as you phone, computer, hard drive, tablet or specially dedicated music server.
- f. Automatically lock doors when you switch off all lights before going to bed.
- g. Program your control device to see who’s at the door when the bell rings.
- h. Automate your HVAC system to always have desired temperature in individual rooms or entire house.

These are only few examples of what you can achieve with a smart home technology. There are definitely many more cool and useful features that you might want to have in your home and a professional automation contractor should be able to suggest you most of them.

## **Step 2: Budgeting**

After you have decided on required functionalities of your smart home, you have to come up with realistic budget. While you do not have to spend an arm and a leg, the most advanced technologies, installation and integration do cost money. So, if you decided to have state-of-the-art smart home, you should set aside a much larger budget than the one you need for a simple security system installation.

If you are too busy to check the pricing for various components yourself, provided you know all of the things you need to build a smart home, we advise you to meet with automation contractor who can help you calculate the necessary budget.



### **Step 3: Selecting Reliable Contractor**

While there are many companies with various levels of home or commercial automation expertise, you should keep few golden rules in mind when selecting reliable automation contractor. First, properly done smart home automation is a very complex task that typically requires very high levels of engineering, programming and installation competency. You must be absolutely certain that your contractor understands available technology, how to program and integrate different components of the system so they work seamlessly together. Sometimes it is better to slightly overpay for professional services than higher a lowest bidder to later find out that one evening your lights do not work or you cannot operate your HVAC system.

Secondly, you should inquire if your contractor has necessary qualifications and certificates. For example, Crestron systems used in automation projects often require a certain level of programming done by Crestron Certified Programmers. Similarly, since smart home installation process almost always requires manipulations with electricity, you want to be sure that your contractor has licensed electricians on board. Many companies hire outside contractors for electrical jobs, which might lead to issues. Indeed, outside electricians do not really concern themselves with the performance of the entire system, as long as what they have been hired to fix is working. It is not uncommon to see outside electrician fixing one issue by creating another. On the other hand, automation contractor own electricians are usually well trained and understand the entire system as opposed to only individual components.

### **Step 4: Technical Design**

During this step, you should meet with selected automation contractor technical team to go over your requirements and specific functionalities you defined in step one. This is also the right time to ask technical questions, inquire about additional functionalities that you might want to have but never thought about, identify locations of mounted controls and discuss all other technical aspects of your project.

It is also during this step that professional automation firm will ask you to visit job site in order to identify possible issues, take measurements and get themselves familiar with specifics of your project. This is absolutely crucial for overall success of your automation project.

### **Step 5: Quotation and Project Approval**

Once all technical design questions are addressed, your contractor will present you with commercial proposal. You should study it carefully. It is sometimes possible to opt out for cheaper version of products as long as they are compatible with the rest of the system components and can be easily integrated and maintained. For example, if you are offered security camera with night vision capabilities but your house is well illuminated from outside, you might opt out for cheaper version camera without such feature.



There is no general guideline when it comes to how much automation project might cost. It all depends on functionalities, equipment provided, project's time-frame and many other factors. The most basic automation functions can start at few thousands and quickly rise to hundreds of thousands of dollars for larger projects that include top of the line home movie theater in a fully automated home that will wow all who enter it.

The good news is that automation market, particularly in larger cities, is very competitive and pricing is more or less same for contracting firms with similar levels of expertise. As with everything else, you should be careful with offers that seem too good to be true. Fixing issues later using professional contractor will definitely increase your overall costs above the savings you achieved by hiring non-experts.

## **Step 6: Installation**

After you have approved contractor's proposal, and usually made initial deposit, you must make sure that contractor's employees have unobstructed access to job site. Postponing access will usually lead to shifted project completion date and will often lead to rising costs. Most automation contractors will divide project into phases and complete one at a time. For example, they might first complete wiring, then install HVAC system, then complete outside lighting, etc. It is advisable to inspect completed job after each phase just in case issues arise or you decide to do certain modifications to your initial plan, which might also lead to budgetary adjustments.

## **Step 7: Testing**

When installation is done, professional contractor will always test both individual components and the entire system. This is necessary to insure proper functioning of each individual smart home element as well as making sure that the entire system is well integrated and all components properly operate and communicate with each other. Insist on thorough testing and functionality check of all components. This step is perhaps the most important one, as this is the perfect time for both parties to see if the project is truly a success or adjustments have to be made.

## **Step 8: Acceptance**

This is the final stage of any home automation project. After everything has been tested and all identified issues addressed, you can release your final payment. Congratulations! Now you can call your house smart home and enjoy all its features.

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